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AN - 1986-085057 [25]

AP - JP19840153881 19840724

CPY - GENS-N

DC - K05 M13 X14

FS - CPI;EPI

IC - C23C14/16 ; G21C3/06

MC - K05-B04B M13-G

- X14-B04X

PA - (GENS-N) GENSHINENRYO KOGYO

PN - JP61031992 A 19860214 DW198613 003pp

PR - JP19840153881 19840724

XA - C1986-036294

XIC - C23C-014/16 ; G21C-003/06

XP - N1986-061937

AB - J61031992 In a nuclear fuel bar in which a nuclear fuel (e.g. UO₂) is packed into a clad tube made of a Zr alloy (e.g. zircalloy-2 or -4), a thin film of a Zr-Nb alloy is formed on the surface of the tube for nuclear fuel by sputtering.

- A plasma is generated between a target of a Zr-Nb alloy and a nuclear fuel bar set in a sputtering chamber filled with a sputtering gas by means of an anode and cathode filament and a negative voltage of -1.0 KV is applied to the target to cause ions in the plasma to collide with the target to form a Zr-Nb alloy film on the surface of the fuel bar.

- USE/ADVANTAGE - The fuel bar constituting a fuel assemblage has good resistance to nodular local corrosion under high-temp. and high-pressure conditions.

IW - NUCLEAR FUEL BAR CONTAIN NUCLEAR FUEL ZIRCONIUM ALLOY TUBE ZIRCONIUM NIOBIUM ALLOY FILM FORMING BAR SURFACE SPUTTER

IKW - NUCLEAR FUEL BAR CONTAIN NUCLEAR FUEL ZIRCONIUM ALLOY TUBE ZIRCONIUM NIOBIUM ALLOY FILM FORMING BAR SURFACE SPUTTER

NC - 001

OPD - 1984-07-24

ORD - 1986-02-14

PAW - (GENS-N) GENSHINENRYO KOGYO

TI - Nuclear fuel bar - contg. nuclear fuel in zirconium alloy tube, with zirconium-niobium alloy film formed on bar surface by sputtering